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Collana	Lecture notes in computer science, , 0302-9743 ; ; 2231
Disciplina	004.16
Soggetti	Embedded computer systems Object-oriented methods (Computer science) Software frameworks Special Purpose and Application-Based Systems Software Engineering/Programming and Operating Systems Programming Techniques Software Engineering Computer Applications Automotive Engineering
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Livello bibliografico	Monografia
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	and Context -- Attitude and Orbit Control Systems (AOCS) -- Software Frameworks -- Framelets and Implementation Cases -- Framework Specification -- Framework Design -- The User's Perspective -- General Structure of the AOCS Framework -- General Design Principles -- The System Management Framelet -- The Object Monitoring Framelet -- The Operational Mode Management Framelet -- The Intercomponent Communication Framelet -- The Sequential Data Processing Framelet -- The AOCS Unit Framelet -- The Reconfiguration Management Framelet -- The Manoeuvre Management Framelet -- The Failure Detection Management Framelet -- The Failure Recovery Management Framelet -- The Telecommand Management Framelet -- The Telemetry Management Framelet -- The Controller Management Framelet -- The Framework Instantiation Process.
Sommario/riassunto	Although framework technology has proven its worth as a software



reuse technique in many domains, there have been reservations regarding its application in embedded systems, mostly due to limited CPU and memory resources. Recent hardware advances, however, have changed this picture. This book shows how object-oriented software frameworks can be applied to embedded control systems. A case study of a framework using a set of application dependent design patterns for the orbit control system of satellites is presented.

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